IN THE CLAIMS

Please amend the claims as shown in the following detailed claim listing. The detailed claim listing is intended to reflect cancellation of claims 1-13. The specific amendments to individual claims are detailed in the following detailed claim listing.

Claims 1-13 (Cancel)

14. (Currently Amended) A substrate for use in a microelectronic circuit package, comprising:

a plurality of pin contact pads on a first surface of said substrate;

a plurality of individual pins soldered to respective individual pin contact pads on said first surface of said substrate; and

~~an~~ a separate portion of encapsulation material surrounding a solder ~~joints~~ joint associated with each of said ~~plurality of~~ individual pins~~, said encapsulation material preventing~~ to prevent movement of said individual pins when said substrate is subjected to high temperatures.

15. (Original) The substrate of claim 14, wherein:

said encapsulation material includes a polymer material.

16. (Original) The substrate of claim 14, wherein:

said encapsulation material includes a no flow material.

17. (Currently Amended) The substrate of claim 14, wherein:

~~said encapsulation material includes at least one of the following: an epoxy-based material and a polyimide-based material.~~ said encapsulation material is selected from the group consisting of one or more of epoxy materials, polyimide materials, SPARK®, Dow Chemical BCB, Cyclotene®, Dexter CNB 868-10, SEC 5230JP or 5114, and an injection molding compound, in any combination.

18. (Currently Amended) A microelectronic device comprising:

a package substrate having pin contact pads on a first surface thereof;

a plurality of individual pins soldered to ~~said~~ respective individual pin contact

pads on said first surface of said package substrate;

~~an~~ a separate portion of encapsulation material surrounding a solder ~~joints~~ joint associated with each of said ~~plurality of~~ individual pins~~, said encapsulation material preventing~~ to prevent movement of said individual pins when said microelectronic device is subjected to high temperatures; and

a microelectronic die connected to said package substrate, said microelectronic die having bond pads that are conductively coupled to said individual pins through said package substrate.

19. (Original) The microelectronic device of claim 18 wherein:

said microelectronic die is connected to said package substrate using a lead free solder having a relatively high melting temperature.

20. (Original) The microelectronic device of claim 18 wherein:

said encapsulation material includes a polymer material.

21. (Original) The microelectronic device of claim 18 wherein:

said encapsulation material includes a no flow material.

22. (Currently Amended) The microelectronic device of claim 18 wherein:

~~said encapsulation material includes at least one of the following: an epoxy-based material and a polyimide-based material.~~ said encapsulation material is selected from the group consisting of one or more of epoxy materials, polyimide materials, SPARK®, Dow Chemical BCB, Cyclotene®, Dexter CNB 868-10, SEC 5230JP or 5114, and an injection molding compound, in any combination.

23. (Original) The substrate of claim 15 wherein:

said polymer material comprises a cured polymer material.

24. (Original) The substrate of claim 15 wherein:

said polymer material has fluxing capabilities.

25. (Original) The substrate of claim 15 wherein:

said polymer material is selected from the group consisting of one or more of Cookson 2071E, Questech EF71 or LF-8, Advanced Polymer Solutions (APS) UFR 1.0

to 1.5, Kester Solder SE-CURE® 9101, Emerson & Cuming RTP-100-1, Sumotomo CRP 4700, and Loctite FF2000 and FF2200, in any combination.

26. (Original) The microelectronic device of claim 20 wherein:
said polymer material comprises a cured polymer material.

27. (Original) The microelectronic device of claim 20 wherein:
said polymer material has fluxing capabilities.

28. (Original) The microelectronic device of claim 20 wherein:
said polymer material is selected from the group consisting of one or more of Cookson 2071E, Questech EF71 or LF-8, Advanced Polymer Solutions (APS) UFR 1.0 to 1.5, Kester Solder SE-CURE® 9101, Emerson & Cuming RTP-100-1, Sumotomo CRP 4700, and Loctite FF2000 and FF2200, in any combination.

29. (Original) The microelectronic device of claim 18 wherein:
said microelectronic die is attached to said package substrate with a plurality of die attach contact pads on the package substrate in contact with a corresponding plurality of solder bumps on bond pads on a surface of said microelectronic die, the solder bumps comprising a high melting temperature, lead-free solder.

30. (Original) The microelectronic device of claim 18, further comprising:
underfill material between said microelectronic die and said package substrate.

31. (Original) A substrate for use in a microelectronic circuit package, comprising:
a plurality of pin contact pads on a first surface of said substrate;
a plurality of pins soldered to said pin contact pads on said first surface of said substrate; and
a cured polymer material about solder joints associated with said pins.

32. (Original) The substrate of claim 31 wherein:
said cured polymer material has fluxing capabilities.

33. (Original) The substrate of claim 31 wherein:

said cured polymer material is selected from the group consisting of one or more of Cookson 2071E, Questech EF71 or LF-8, Advanced Polymer Solutions (APS) UFR 1.0 to 1.5, Kester Solder SE-CURE® 9101, Emerson & Cuming RTP-100-1, Sumotomo CRP 4700, and Loctite FF2000 and FF2200, in any combination.

34. (Original) The substrate of claim 31, further comprising:

a microelectronic die attached to the substrate.

35. (Original) The substrate of claim 31 wherein:

a layer of said cured polymer material enshrouds a plurality of solder joints associated with said pins.

36. (Original) The substrate of claim 31 wherein:

a separate portion of said cured polymer material enshrouds an individual solder joint associated with each of said pins.

37. (Original) A microelectronic device comprising:

a package substrate having pin contact pads on a first surface thereof;

a plurality of pins soldered to said pin contact pads on said first surface of said package substrate;

a cured polymer material about solder joints associated with said pins; and

a microelectronic die connected to said package substrate, said microelectronic die having bond pads that are conductively coupled to said pins through said package substrate.

38. (Original) The microelectronic device of claim 37, further comprising:

underfill material between said microelectronic die and said package substrate.

39. (Original) The microelectronic device of claim 37 wherein:

said cured polymer material has fluxing capabilities.

40. (Original) The microelectronic device of claim 37 wherein:

said cured polymer material is selected from the group consisting of one or more of Cookson 2071E, Questech EF71 or LF-8, Advanced Polymer Solutions (APS) UFR

1.0 to 1.5, Kester Solder SE-CURE® 9101, Emerson & Cuming RTP-100-1, Sumotomo CRP 4700, and Loctite FF2000 and FF2200, in any combination.

41. (Original) The microelectronic device of claim 37 wherein:

a layer of said cured polymer material enshrouds a plurality of solder joints associated with said pins.

42. (Original) The microelectronic device of claim 37 wherein:

a separate portion of said cured polymer material enshrouds an individual solder joint associated with each of said pins.

43. (Original) The microelectronic device of claim 37 wherein:

said microelectronic die is attached to said package substrate with a plurality of die attach contact pads on the package substrate in contact with a corresponding plurality of solder bumps on bond pads on a surface of said microelectronic die, the solder bumps comprising a high melting temperature, lead-free solder.